

Claims

*Subcat 7.* A medical device for use within a body cavity, the medical device comprising:  
2 an elongated body portion defining a lumen, said body portion comprising a  
3 proximal end, a distal end, a proximal portion, and a distal portion; and,  
4 a retention module disposed proximal to said proximal end of said elongated body  
5 portion, said retention module comprising a fixation element attached to the elongated  
6 body portion by a tether connector.

1 2. The medical device of claim 1 wherein said fixation element is substantially  
2 buoyant.

1 3. The medical device of claim 1 wherein said fixation element comprises a size and  
2 configuration that prohibits the passage of said fixation element from the lumen of the  
3 urinary bladder into the lumen of the ureter.

1 4. The medical device of claim 1 wherein said fixation element is a substantially  
2 planar spiral.

1 5. The medical device of claim 1 wherein said fixation element is a substantially  
2 helical spiral.

1 6. The medical device of claim 1 wherein said proximal portion of said elongated  
2 body portion is substantially more compressible than the other portions of said elongated  
3 body portion.

1 7. The medical device of claim 1 further comprising a plurality of the retention  
2 modules.

1 8. The medical device of claim 1 wherein said tether connector is substantially  
2 elastic.

1 9. The medical device of claim 1 wherein said tether connector is substantially rigid.

1    10.    The medical device of claim 1 wherein said distal portion of said elongated body  
2    portion comprises a planar spiral loop for retention in the renal pelvis.

1    11.    The medical device of claim 1 wherein said elongated body portion is  
2    substantially rigid to prevent its deformation during insertion through the ureter.

1    12.    The medical device of claim 1 wherein said elongated body portion defines a  
2    plurality of openings along its length.

1    13.    The medical device of claim 1 wherein said fixation element is substantially  
2    spherical.

1    14.    The medical device of claim 13 wherein the diameter of said fixation element is  
2    greater than the diameter of the lumen of the ureter.

1    15.    A method of treating at least partial ureteral obstruction of a patient, comprising:  
2         a.      providing a medical device comprising an elongated body portion  
3      defining a lumen, the body portion comprising a proximal end, a distal end, a proximal  
4      portion, and a distal portion, the medical device further comprising a retention module  
5      disposed proximal to said proximal end of the elongated body portion, said retention  
6      module comprising a fixation element attached to the elongated body portion by a tether  
7      connector; and

8         b.      inserting the medical device into the patient such that said fixation element  
9      is positioned in the bladder of the patient.

1    16.    The method of claim 15 wherein said fixation element is substantially buoyant.

1    17.    The method of claim 15 wherein the fixation element comprises a size and  
2      configuration that prohibits the passage of said fixation element from the lumen of the  
3      urinary bladder into the lumen of the ureter.

1    18.    The method of claim 15 wherein said device further comprises a plurality of the  
2      retention modules.

- 1    19.    The method of claim 15 wherein said tether connector is substantially elastic.
- 1    20.    The method of claim 15 wherein said tether connector is substantially rigid.
- 1    21.    The method of claim 15 wherein said distal portion comprises a planar spiral loop  
2    for retention in the renal pelvis.
- 1    22.    The method of claim 15 wherein said elongated body portion is substantially rigid  
2    to prevent its deformation during insertion through the ureter.
- 1    23.    The method of claim 15 wherein said elongated body portion defines a plurality of  
2    openings along its length.
- 1    24.    The method of claim 15 wherein said fixation element is substantially spherical.
- 1    25.    The method of claim 24 wherein the diameter of said fixation element is greater  
2    than the diameter of the lumen of the ureter.
- 1    26.    A medical device for use within a body cavity, the medical device comprising:  
2         an elongated body portion defining a lumen, said elongated body portion  
3         comprising a proximal end, a distal end, a proximal portion and a distal portion and said  
4         elongated body portion including a plurality of pores, said distal portion comprising a  
5         planar spiral; and,  
6             at least one retention module attached to said proximal end of said elongated body  
7         portion, said retention module comprising at least one buoyant, spherical fixation element  
8         attached to the proximal end of said elongated body portion by a substantially elastic  
9         tether connector.

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